

# Work Order ID 77431

Tuesday, December 06, 2011 4:42:56 PM

**\*77431\***

*ASAP*

Page 1

Item ID: D3806-7 *2* Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bar  
 Start Date: 12/6/2011 Start Qty: *2* **\*1\*** Cust Item ID:  
 Required Date: 12/8/2011 Req'd Qty: *1* **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: *MF* Date: *11-2-08* Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3806	B								

100 0.00  
**\*100\***  
 Cold Saw *11/12/12* *2*  
 Hyd Mech  
 Memo  
 Cut blanks at 46.14"  
 \*\*\*FOR CLAMPING PURPOSE WHEN WELDING 1.00" WAS ADDED ON  
 LENGTH AND IT WILL BE CUT TO LENGTH AFTER WELDING\*\*\*

110 0.00  
**\*110\***  
 HAAS 1 *11/12/12* *2*  
 HAAS CNC vertical machine #1  
 Memo  
 1-Mill as per folio FB070 & dwg  
 FOLIO REV: \_\_\_\_\_  
 DWG REV: \_\_\_\_\_  
 2-Deburr as required  
*Manual Mill*

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Tuesday, December 06, 2011 4:42:56 PM

Item ID: D3806-7 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bar  
 Start Date: 12/6/2011 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 12/8/2011 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo ***FOR CLAMPING PURPOSE WHEN WELDING 1.00" WAS ADDED ON LENGTH AND IT WILL BE CUT TO LENGTH AFTER WELDING***	0.00  0.00		<i>11/12/12</i>		<i>2</i>			
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00		<i>11/12/12</i>		<i>2</i>	<i>1</i>		
133 <b>*133*</b> Large Fab Large Fab	Weld per dwg A/R Hardcoat S.S. Batch: _____  Memo 1- On D3806-7, fill cut outs with hardcoat welding rod as per dwg D3805 2059 B Hardcoat Welding Rod BATCH#: <i>M119615</i>  ***CUT BAR TO FINISH SIZE AFTER WELDING HARD COAT***	0.00  0.00				<i>(2)</i>	<i>MAL/EL</i>	<i>11/12/12</i>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 77431**

Tuesday, December 06, 2011 4:42:56 PM

**\*77431\***

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Item ID: D3806-7

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Bar

Start Date: 12/6/2011 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 12/8/2011 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

136

QC10- Inspect visual per QSI004- ground welds

0.00

**\*136\***

QC

Memo

0.00

Quality Control

11.12.13

137

QC5- Inspect part completeness to step on W/O

0.00

**\*137\***

QC

Memo

0.00

Quality Control

8-11-13

x2

140

Identify as per dwg & Stock Location: *W/A*

0.00

**\*140\***

Packaging

Memo

0.00

Packaging

EL 11-12-13

x 3

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Tuesday, December 06, 2011 4:42:56 PM

**\*77431\***

Page 4

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 12/6/2011      **Start Qty:** 1.00      **\*1\***

**Cust Item ID:**

**Required Date:** 12/8/2011      **Req'd Qty:** 1.00      **\* 1 \***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/  
Work Center ID

### Operation Description

### Set Up/ Run Hours

## Tool ID

Tool #

## Plan Code

**Accept  
Qty**

Reject  
Qty

## Reject Number!

**Insp.  
Stamp**

150

QC21- Final Inspection - Work Order Release

0.00

**\*150\***

QC

## Memo

0.00

## Quality Control

Reject Insp.  
Number Stamp

W/12/13

MF

11-12-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

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Page 1

Work Order ID: 77431

Parent Item: D3806-7

Parent Item Name: Bar

Start Date: 12/6/2011

Required Date: 12/8/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 08-09-23 new issue DD verified by:EC  
IPP Rev:B 08-12-05 chg mat. thickness DD verified by:EC IPP Rev:C 11.10.04 rev.b as per  
dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304B0.500X2.500 304 BAR .500 x 2.50		Purchased	No				f	52.4970		4.0084211			

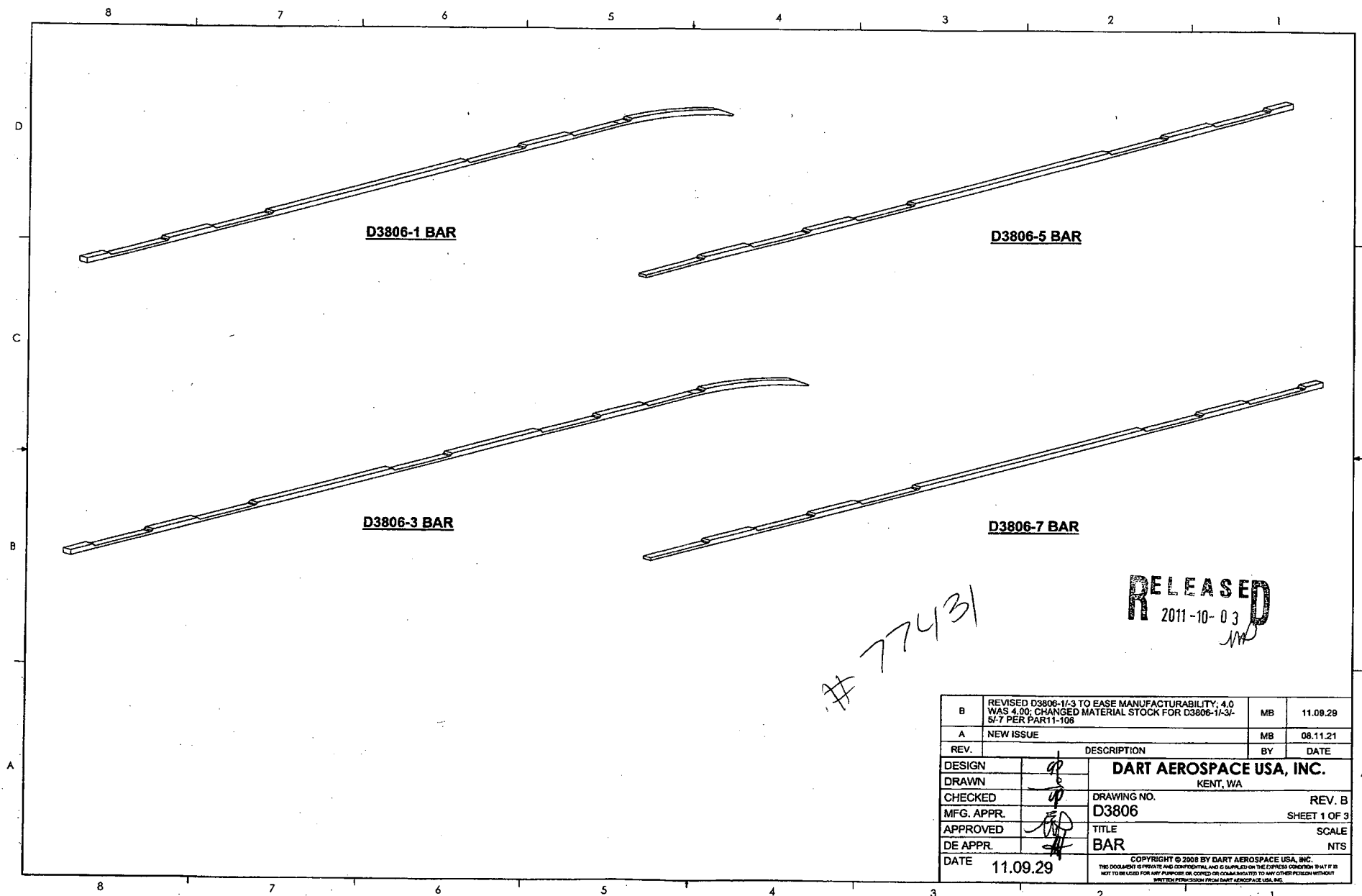
<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
MAT050	52.497	
112764	8.312	
116135	0.375	
117685	4.4	
119231	39.41	

.50 X 2.50

M #8972  
119872

~~8.5~~ 90 11/12/12  
16.0





B	REVISED D3806-1/3 TO EASE MANUFACTURABILITY; 4.0 WAS 4.00; CHANGED MATERIAL STOCK FOR D3806-11-3/-5/-7 PER PAR11-106	MB	11.09.29
A	NEW ISSUE	MB	08.11.21
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE USA, INC.	
DRAWN	MB	KENT, WA	
CHECKED	MB	DRAWING NO.	REV. B
MFG. APPR.	MB	D3806	SHEET 1 OF 3
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	BAR	NTS
DATE	11.09.29	<small>COPYRIGHT © 2008 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

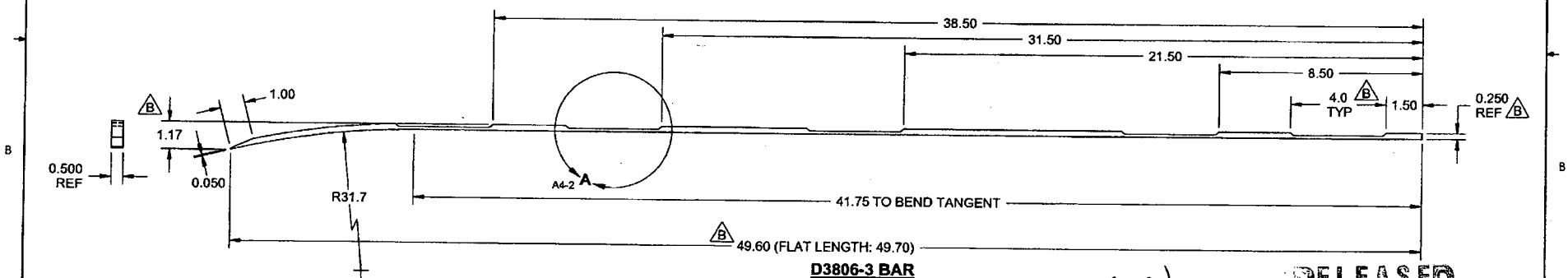
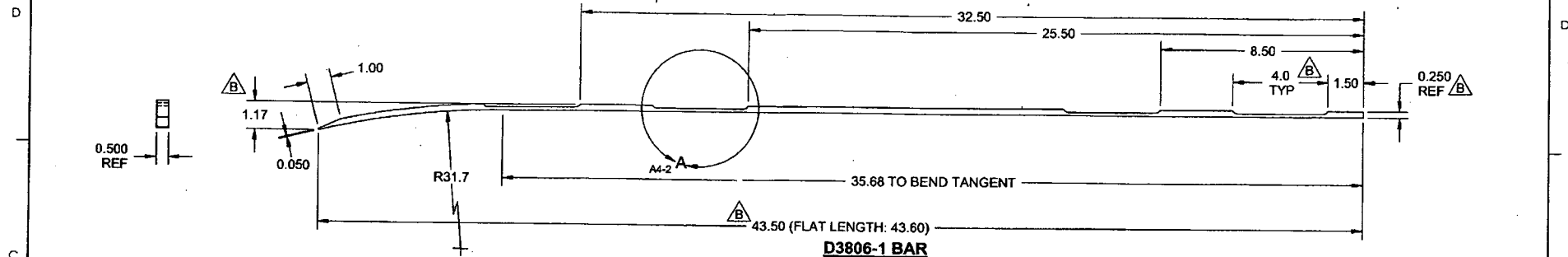
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

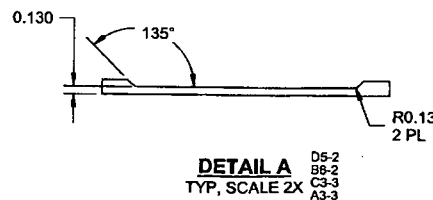
NOTE: Date & initial all entries

8 7 6 5 4 3 2 1



**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR, 0.250 X 0.500 THICK  
REF. DART SPEC. M304B0.250W00.500
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT:  
D3806-1 = 1.27 lbs  
D3806-3 = 1.42 lbs



DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3806	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BAR	NTS
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**RELEASED**  
2011-10-03

# 77431

8 7 6 5 4 3 2 1

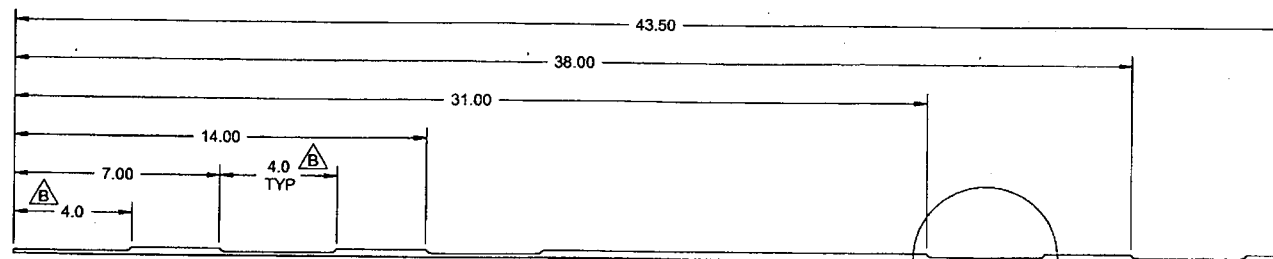
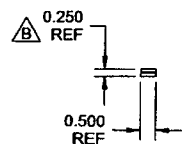
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

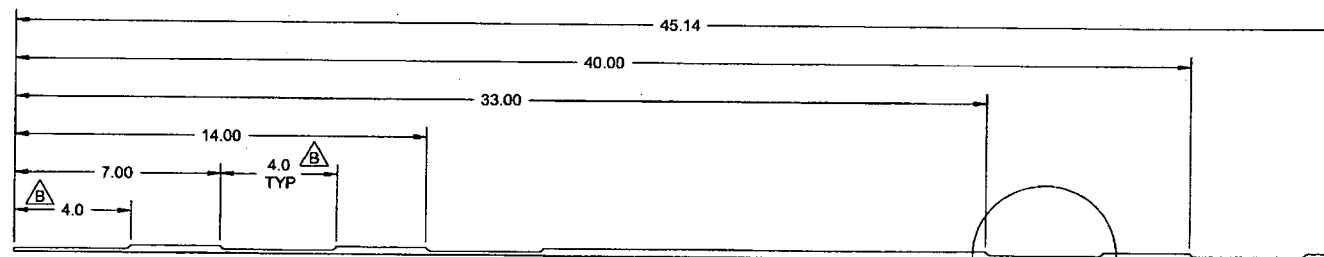
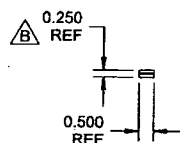
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D3806-5 BAR**



**D3806-7 BAR**

**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL BAR, 0.250 X 0.500 THICK  
REF. DART SPEC. M304B0.250W00.500
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT:  
D3806-5 = 1.22 lbs  
D3806-7 = 1.28 lbs

# 77431

**RELEASED**  
2011-10-03

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3806	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BAR	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

FIRST ARTICLE INSPECTION CHECKLIST

DART AEROSPACE LTD		Work Order: 77431
Description: RAR		Part Number: 3806-7
Inspection Dwg: 3806 Rev: B		Page 1 of 1

☒ First Article   
 ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.00	±.030	4.00	-	-	RA04	Tape
7.00	±.030	7.00	-	-	"	
14.00	±.030	14.00	-	-	"	
33.00	±.030	33.00	-	-	"	
40.00	±.030	40.00	-	-	"	
45.14	±.030	45.14	-	-	"	
.250	±.010	.256	-	-	RA26	vern
.500	±.010	.498	-	-	RA26	vern
.130	±.010	.127	-	-	"	vern

Measured by:	Date: 11/12/12	Audited by:	Date: 11/12/12	Prototype Approval:	Date:
Rev A	Date	Change	Revised by	Approved	KJ/JLM